

# Comparisons of Job Characteristics

**Focus Occupation:** [Patternmakers, Metal and Plastic \(51-4062\)](#)

**Associated Occupation:** [Machinists \(51-4041\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

## Knowledge

Similarity of Focus Occupation to Associated Occupation: 94

**Focus Occupation:** Patternmakers, Metal and Plastic (51-4062)

**Associated Occupation:** Machinists (51-4041)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Mechanical	6.8	18.0	16.3	< Expanded education and/or training may be required
Mathematics	9.2	14.2	14.2	0 Current knowledge level may be sufficient
Production and Processing	6.0	12.7	10.6	< Expanded education and/or training may be required
Design	5.2	11.2	14.4	>> Current knowledge level is likely more than sufficient
Engineering and Technology	5.7	10.2	13.0	> Current knowledge level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Skills

Similarity of Focus Occupation to Associated Occupation: 69

**Focus Occupation:** Patternmakers, Metal and Plastic (51-4062)

**Associated Occupation:** Machinists (51-4041)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Quality Control Analysis	5.9	12.6	7.3	<< Extensive development of skills in this area may be required
Operation Monitoring	6.6	12.0	9.5	< A higher skill level may be required
Operation and Control	5.4	11.1	8.7	< A higher skill level may be required
Troubleshooting	4.5	10.2	4.8	<< Extensive development of skills in this area may be required
Equipment Maintenance	3.5	9.3	4.8	<< Extensive development of skills in this area may be required
Equipment Selection	3.3	8.6	4.4	<< Extensive development of skills in this area may be required

Repairing	3.4	8.5	4.2	<<	Extensive development of skills in this area may be required
Installation	1.7	6.0	2.4	<<	Extensive development of skills in this area may be required
Technology Design	2.6	6.0	4.6	<	A higher skill level may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 83			
Focus Occupation: Patternmakers, Metal and Plastic (51-4062) Associated Occupation: Machinists (51-4041)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Control Precision	6.6	13.3	10.0	<<	Extensive improvement in abilities may be required
Finger Dexterity	7.6	11.6	9.2	<	Some improvement in abilities may be required
Manual Dexterity	6.5	11.1	9.2	<	Some improvement in abilities may be required
Multilimb Coordination	6.0	10.7	8.2	<<	Extensive improvement in abilities may be required
Reaction Time	4.8	10.1	7.5	<<	Extensive improvement in abilities may be required
Hearing Sensitivity	5.6	9.3	7.1	<<	Extensive improvement in abilities may be required
Rate Control	3.8	8.6	6.8	<	Some improvement in abilities may be required
Wrist-Finger Speed	3.2	7.3	4.6	<<	Extensive improvement in abilities may be required
Sound Localization	2.2	6.2	2.8	<<	Extensive improvement in abilities may be required
Speed of Limb Movement	3.2	6.1	3.7	<<	Extensive improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 100	
Focus Occupation: Patternmakers, Metal and Plastic (51-4062) Associated Occupation: Machinists (51-4041)			
Work Activities		Exclusivity of Activity	
Adjust production equipment/machinery setup		25	
Design tools or mechanical devices		85	
Determine tasks needed to complete machined products		87	
Examine products or work to verify conformance to specifications		15	

Fabricate, assemble, or disassemble manufactured products by hand	11
Identify base metals for welding	68
Lay out machining, welding or precision assembly projects	63
Monitor production machinery/equipment operation to detect problems	27
Operate metal or plastic fabricating equipment/machinery	54
Perform safety inspections in manufacturing or industrial setting	33
Read blueprints	10
Read specifications	23
Read technical drawings	7
Recognize characteristics of alloys	71
Recognize characteristics of metals	62
Set up and operate variety of machine tools	62
Set up computer numerical control machines	69
Set up production equipment or machinery	51
Solve machine tool problems	89
Understand machine setup instructions	74
Understand technical operating, service or repair manuals	6
Use arc welding equipment	62
Use hand or power tools	2
Use machining practices	92
Use non-destructive test equipment	82
Use precision measuring tools or equipment	17
Use x-ray or magnetic inspection techniques	84
Weld together metal parts, components, or structures	54

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Tools and Technologies that Both Occupations Have in Common

Similarity of Focus  
Occupation to Associated  
Occupation: n/a

**Focus Occupation: Patternmakers, Metal and Plastic (51-4062)**  
**Associated Occupation: Machinists (51-4041)**

### Tools and Technologies

### Exclusivity

Tools and technology data is unavailable for one or both occupations.

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.